



911407-00

# 22 & 22-F

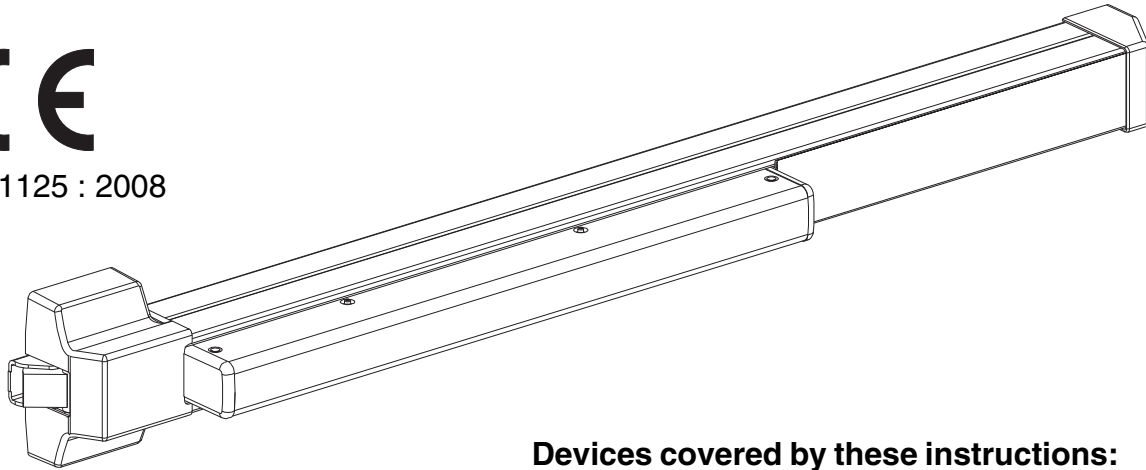
# VON DUPRIN®

Rim device

Installation Instructions



BS EN 1125 : 2008



**Devices covered by these instructions:**

- 22 Rim Exit Device
- 22-F Rim Fire Exit Device

These instructions are presented in step-by-step sequence and include templates in the back to tape to your door and frame as an aid in preparing for device mounting.

Please review pages 2 and 3 carefully so you will be able to identify the hardware you have and understand the terminology used in these instructions.

**Special Tools Required:**

- #10-24 tap
- 3 mm dia. drill bit
- #25 drill bit (approximately 4 mm dia.)
- 10 mm dia. drill bit (for sex bolts)
- 13 mm dia. drill bit
- Hacksaw
- Sabre saw

**Index:**

- General Information ..... 2
- Warnings ..... 2
- Maintenance ..... 2
- Outside Trim Functions ..... 2
- Parts List ..... 3
- Installation ..... 4
- Templates ..... 9

**Please give these instructions to building owner after device is installed**



**Customer Service**

1-877-671-7011    [www.allegion.com/us](http://www.allegion.com/us)

# GENERAL INFORMATION

These exit devices can be installed on the door widths listed below:

Device Size	Code/Standard Requirement	Effective Door Width
813 mm	BS EN 1125 : 2008	674 mm - 762 mm
1118 mm	BS EN 1125 : 2008	826 mm - 1016 mm



## WARNING

The safety features of this product are essential to its compliance with BS EN 1125 : 2008. No modifications of any kind, other than those described in these instructions, are permitted.



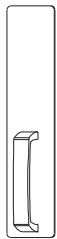
## NOTE

Dogging panic device during high traffic periods will increase life of device. To dog, depress pushbar and turn hex key or cylinder key one-quarter turn clockwise.

# OUTSIDE TRIM FUNCTIONS



**EO\***  
(exit only)



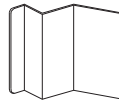
**DT**  
(pull when dogged)



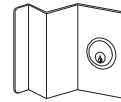
**NL**  
(key retracts latch bolt)



**TP**  
(key locks thumbpiece)



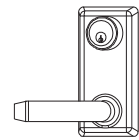
**DT**  
(pull when dogged)



**NL**  
(key retracts latch bolt)



**K**  
(key locks knob)



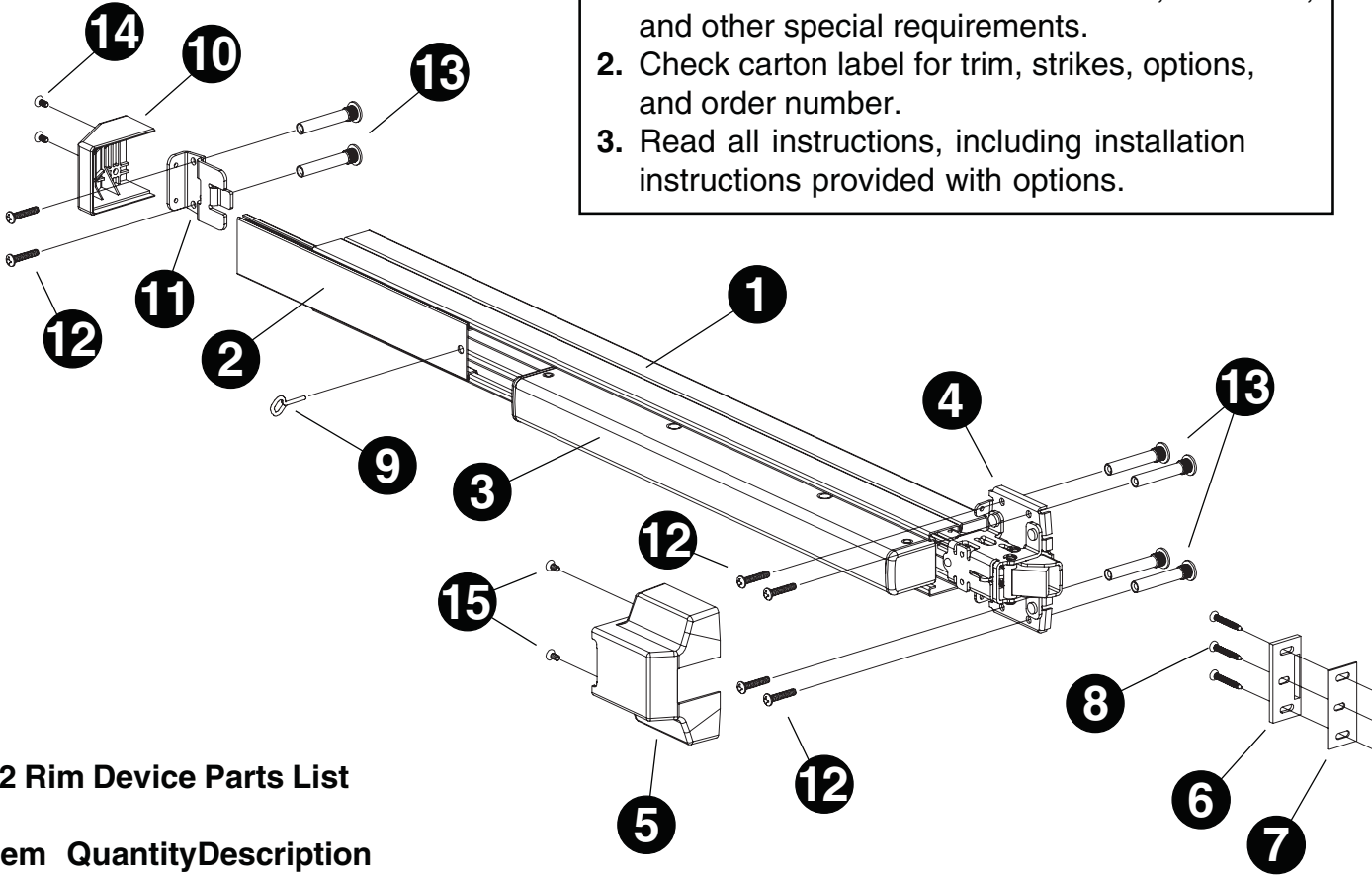
**L**  
(key locks lever)

\* No trim provided with EO; 230EO plate shown is optional.

# PARTS LIST

**⚠ NOTES**

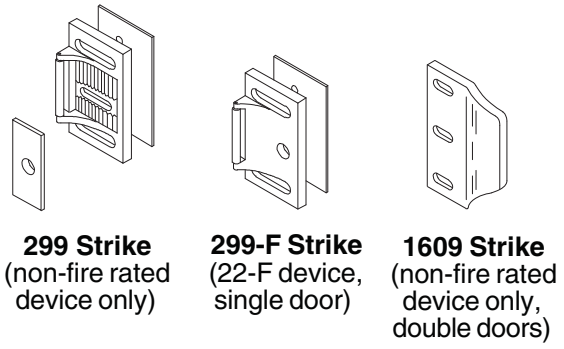
1. Check hardware schedule for strikes, fasteners, and other special requirements.
2. Check carton label for trim, strikes, options, and order number.
3. Read all instructions, including installation instructions provided with options.



## 22 Rim Device Parts List

**Item    Quantity    Description**

1	1	Mechanism case
2	1	Cover plate
3	1	Pushbar
4	1	Center case
5	1	Center case cover
6	1	299, 299-F, or 1609 strike
7	1	Strike adjusting shim (222 and 299-F strikes only)
8	3	#10-24 x 19 mm flat head machine screw (299 and 299-F strikes only) or
	3	#10-12 x 38 mm flat head wood screw (299 and 299-F strikes only) or
	3	#10-12 x 10-24 x 32 mm oval head combination screw (1609 strike only)
9	1	Dogging key (panic device)
10	1	Mechanism end cap
11	1	Mechanism case mounting bracket
12	1	Mounting screw package:
	8	#10 x 32 mm pan head sheet metal screw
	2	#10-24 x 19 mm pan head machine screw
	2	#10-24 x 29 mm pan head machine screw
	6	#10-24 x 25 mm pan head machine screw
	6	#10-24 x 38 mm pan head machine screw
13	varies	#425 sex bolts (optional)
14	2	#8-32 x 13 mm oval head machine screw



# INSTALLATION

## 1 Mark device and strike locations and install strike.

- 1.1. Install door(s) to frame. Install mullion first for double doors.
- 1.2. Mark device and strike centerline locations from finished floor (Figure 1-1).
- 1.3. Tape Template #2 (p. 11 or 12) to door and mark holes **A**.
- 1.4. For single door, tape Template #1 (p. 9) to frame and mark for 299 or 299-F strike (Figure 1-1).

**NOTE**  
If mounting this device on a pair of doors with a 2227 device, use the 1609 strike. See Figure 1-3 on opposite page.

- 1.5. Prepare holes for strike:
  - Metal door or frame: #25 drill and #10-24 tap
  - Wood door or frame: 3 mm drill x 25 mm deep (pilot holes)
- 1.6. Install strike (Figure 1-2):
  - Metal door or frame: #10-24 x 19 mm flat head machine screws (shown)
  - Wood door or frame: #10 x 38 mm flat head wood screws

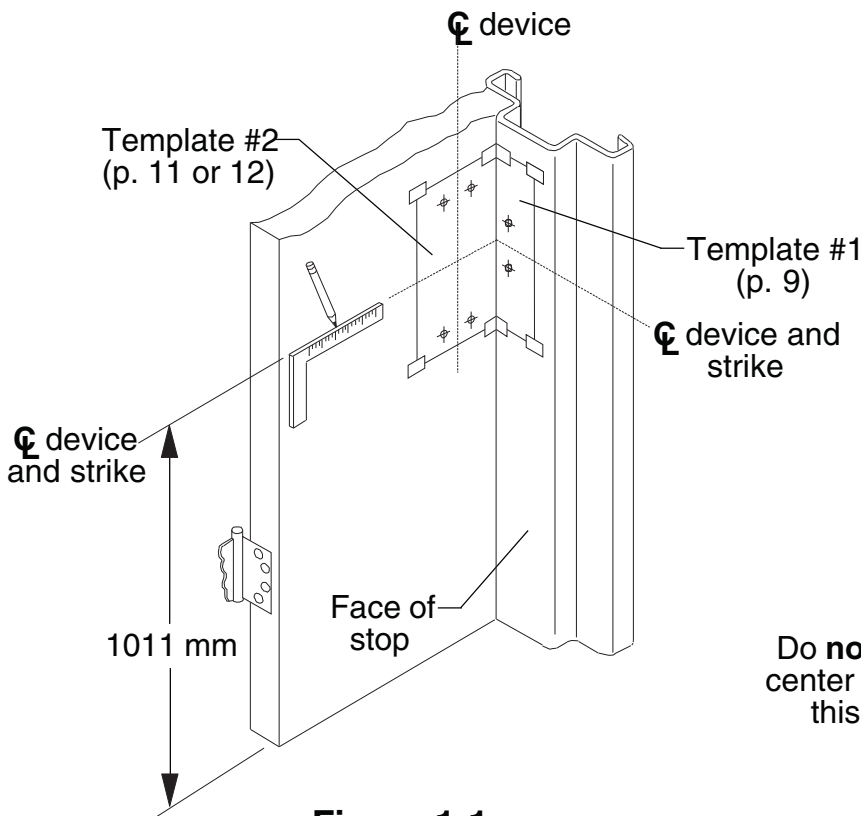


Figure 1-1

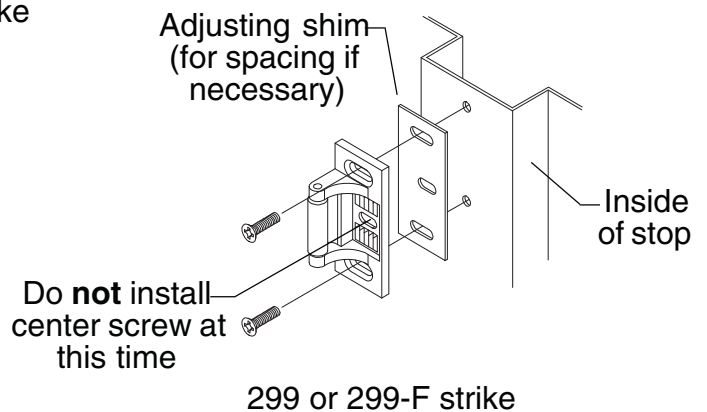
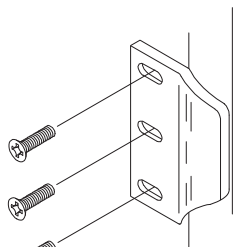


Figure 1-2

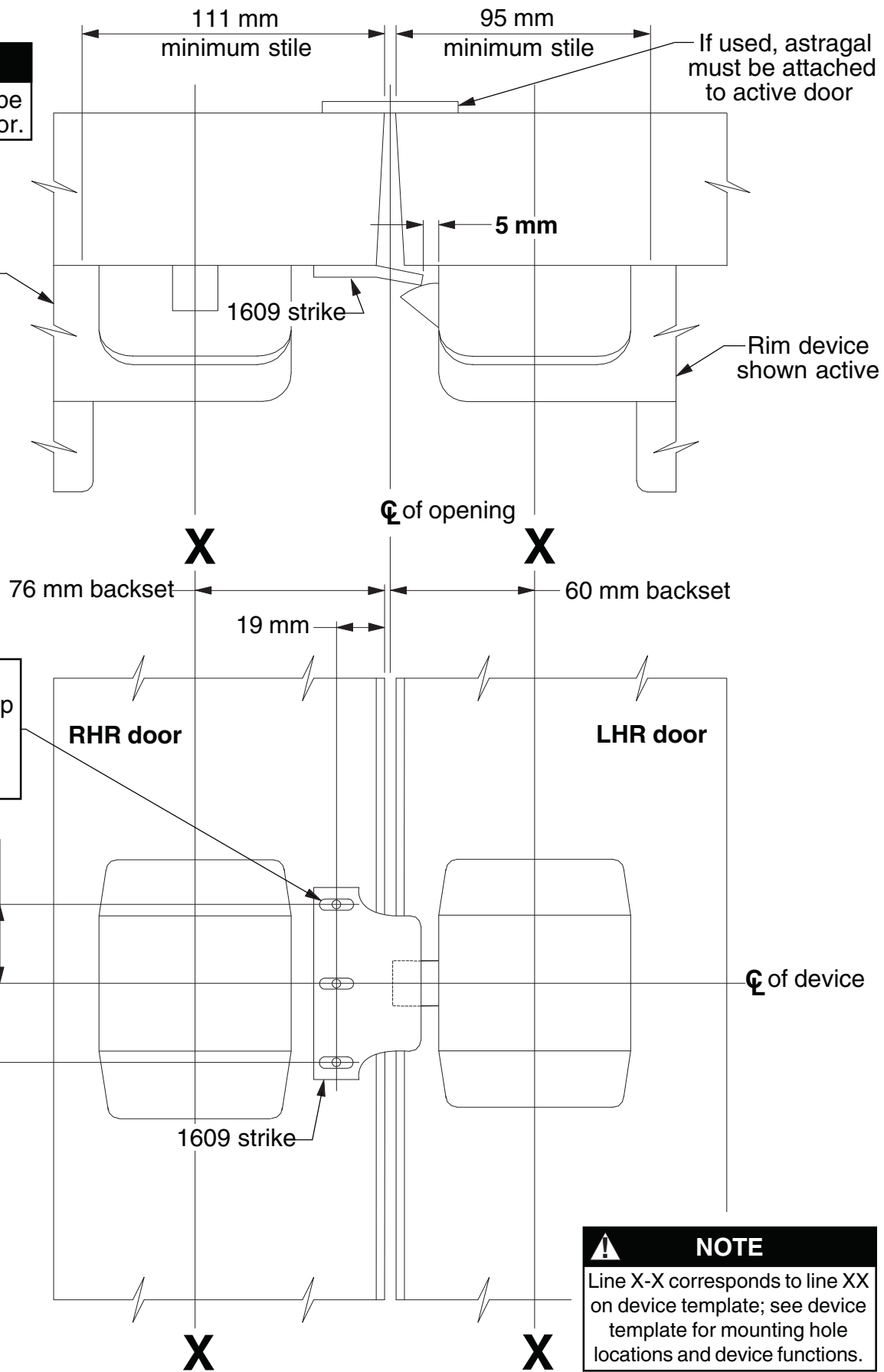
**NOTE**  
 A coordinator must be used on inactive door.

Vertical rod device shown inactive



Mount 1609 strike with #10-12 x 10-24 x 32 mm oval head combination screws

**Metal door:**  
 #25 drill, #10-24 tap  
**Wood door:**  
 3 mm drill x 25 mm deep (pilot holes)



**Figure 1-3. Preparation for 1609 Strike**

## 2 Measure door opening and cut device.

**NOTE**  
Do not cut for 914 mm or 1219 mm wide doors.  
Standard 914 mm door device = approx. 813 mm.  
Standard 1219 mm door device = approx. 1118 mm.

- 3.1. Measure from edge of stop to strike roller (Figure 2-1). **A** = .....
- 3.2. Measure device with end cap removed (Figure 2-2). **B** = .....
- 3.3. Subtract **B** from **A**. **A** minus **B** = .....  
If necessary, cut device so **A** minus **B** is at least 38 mm.
- 3.4. If cutting is required, tape device at cut location and cut through tape and device (Figure 2-3).

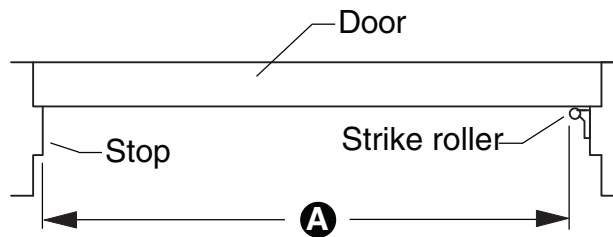


Figure 2-1

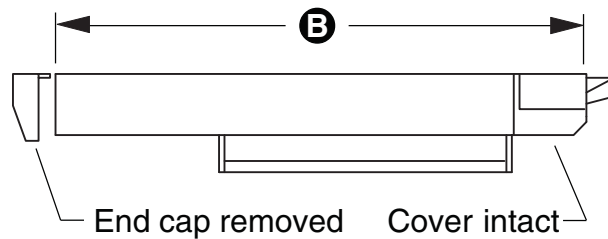


Figure 2-2

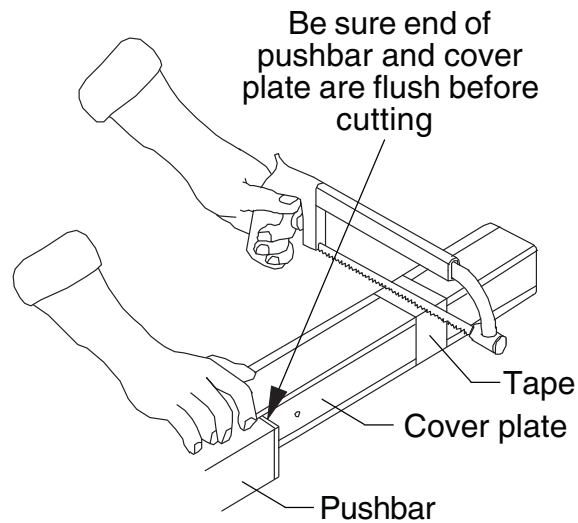


Figure 2-3

### 3 Prepare door and install device.

- 3.1. Prepare holes **A** (see Figure 3-1 and chart at bottom of page).
- 3.2. Prepare door for trim (see trim instructions).
- 3.3. If trim has cylinder, install tailpiece guide (packaged with trim; Figure 3-2).
- 3.4. Install device to door at center case (Figure 3-1).
- 3.5. Use end cap bracket as a template to mark location of holes **B**. (Make sure bracket is flush against mechanism case.) Prepare holes.
- 3.6. Install end cap bracket and end cap.

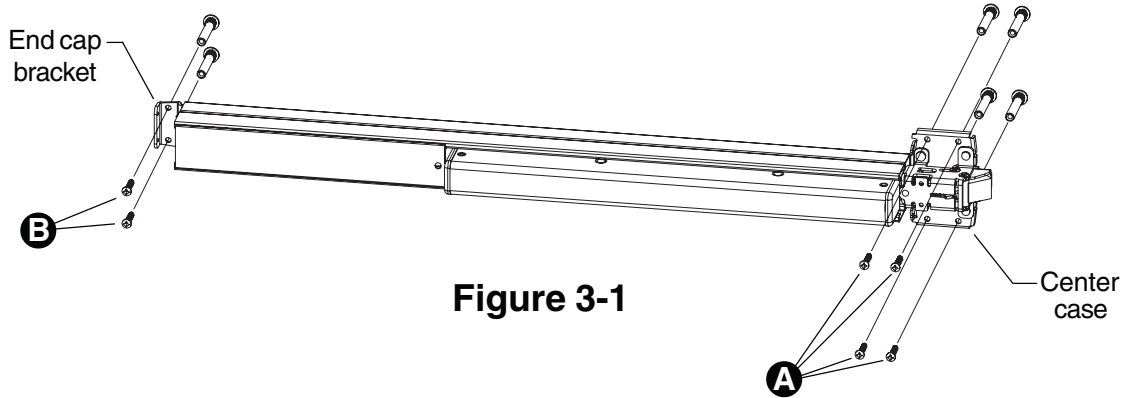


Figure 3-1

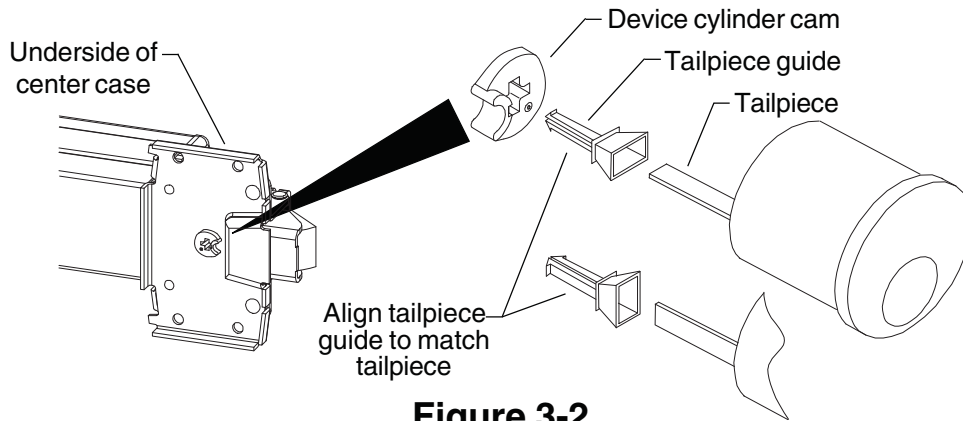


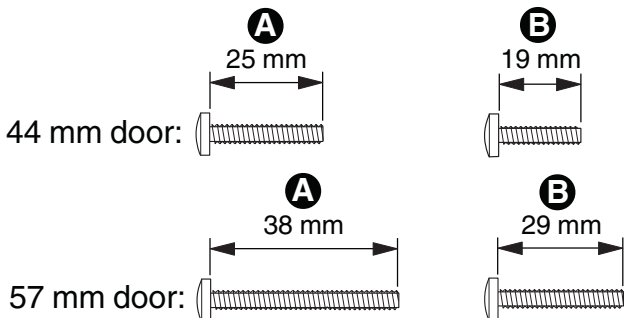
Figure 3-2

**Metal Door Surface Application (EO):**  
#25 drill and #10-24 tap

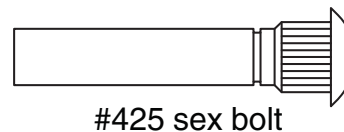
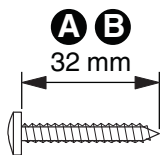


**For #425 Sex Bolts or Outside Trim:**

Metal door: 6 mm drill inside; 10 mm outside  
Wood door: 10 mm drill thru



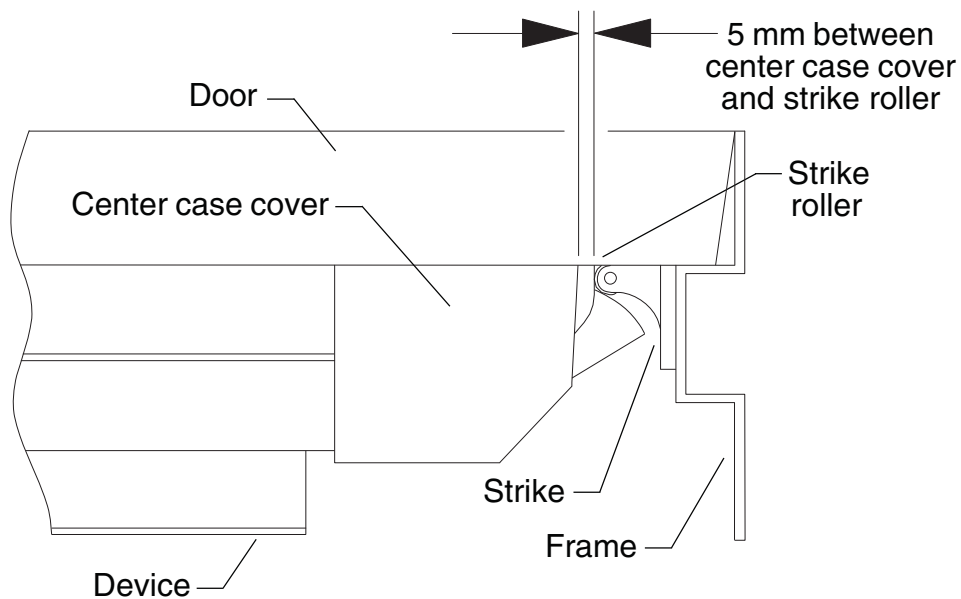
**Wood Door Surface Application (EO):**  
3 mm drill x 25 mm deep



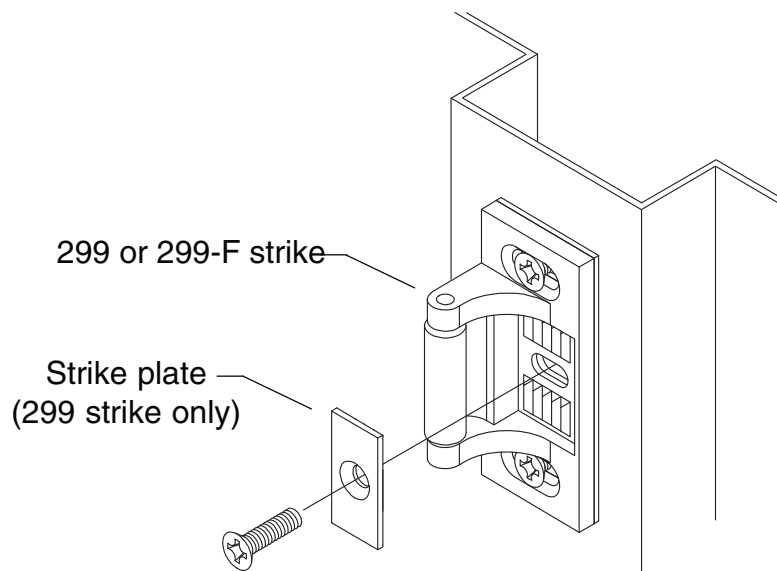
#425 sex bolt

## 4 Adjust and secure 299 or 299-F strike.

- 4.1. Close door and adjust strike as shown in Figure 6-1. Use strike adjusting shim if necessary.
- 4.2. Mark and prepare frame for strike center screw (Figure 6-2).
  - Metal frame: #25 drill and #10-24 tap
  - Wood frame: 3 mm drill x 25 mm deep (pilot hole)
- 4.3. Install center screw. Use strike plate with 299 strike only (Figure 6-2):
  - Metal door or frame: #10-24 x 19 mm flat head machine screw (shown)
  - Wood door or frame: #10 x 38 mm flat head wood screw



**Figure 6-1**



**Figure 6-2**

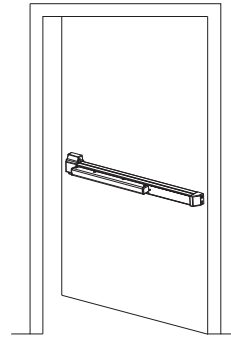


# TEMPLATE #1

299 and 299-F strikes

Refer to Step #1 (page 4)  
when using this template

Template to scale

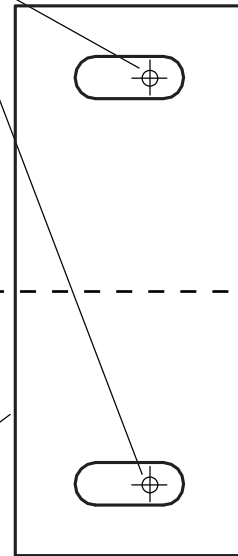


## LHR

Metal frame: #25 drill and #10-24 tap  
Wood frame: 3 mm dia. x 25 mm deep  
pilot holes

Ⓢ of device

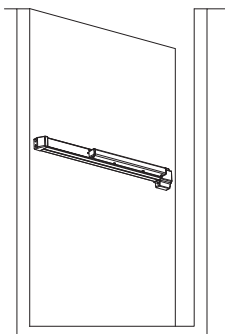
299 or 299-F strike



1. Cut template along this line

2. Place this edge of template  
against face of door

## RHR



Template to scale

Refer to Step #1 (page 4)  
when using this template

299 and 299-F strikes

# TEMPLATE #1

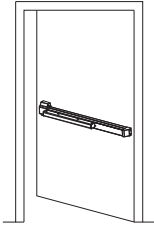
This page is intentionally left blank

# TEMPLATE #2

## 22/22-F Rim Devices

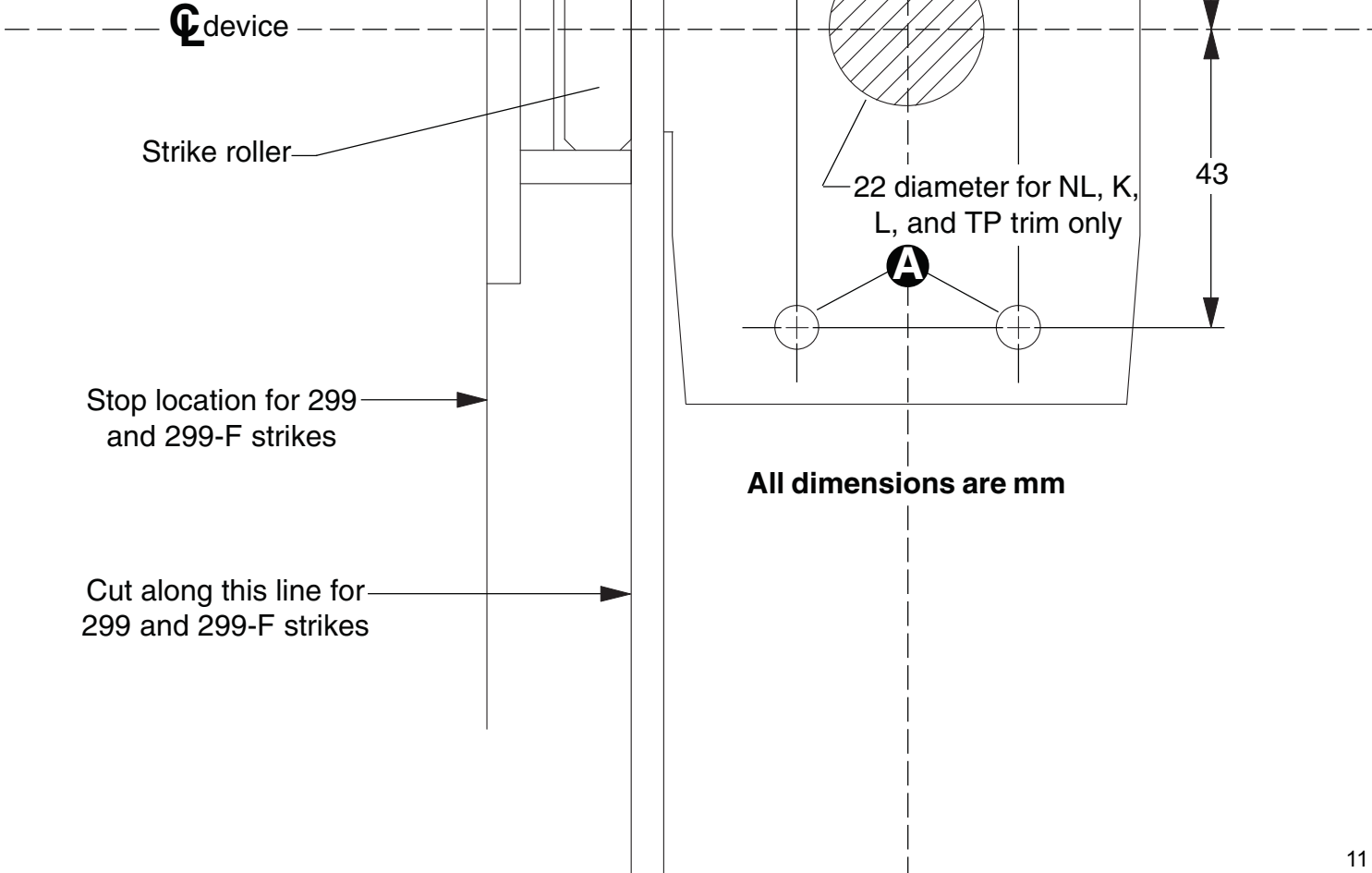
Refer to Steps #1 and #3 when using this template

Template to scale (all dimensions are mm)



**LHR**

**NOTE**  
 If using a 1609 strike on a pair of doors (with rim and vertical rod devices), see Step #1, page 5.



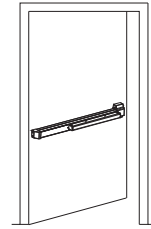
All dimensions are mm

# TEMPLATE #2

22/22-F Rim Devices

Refer to Steps #1 and #3  
when using this template

Template to scale  
(all dimensions are mm)

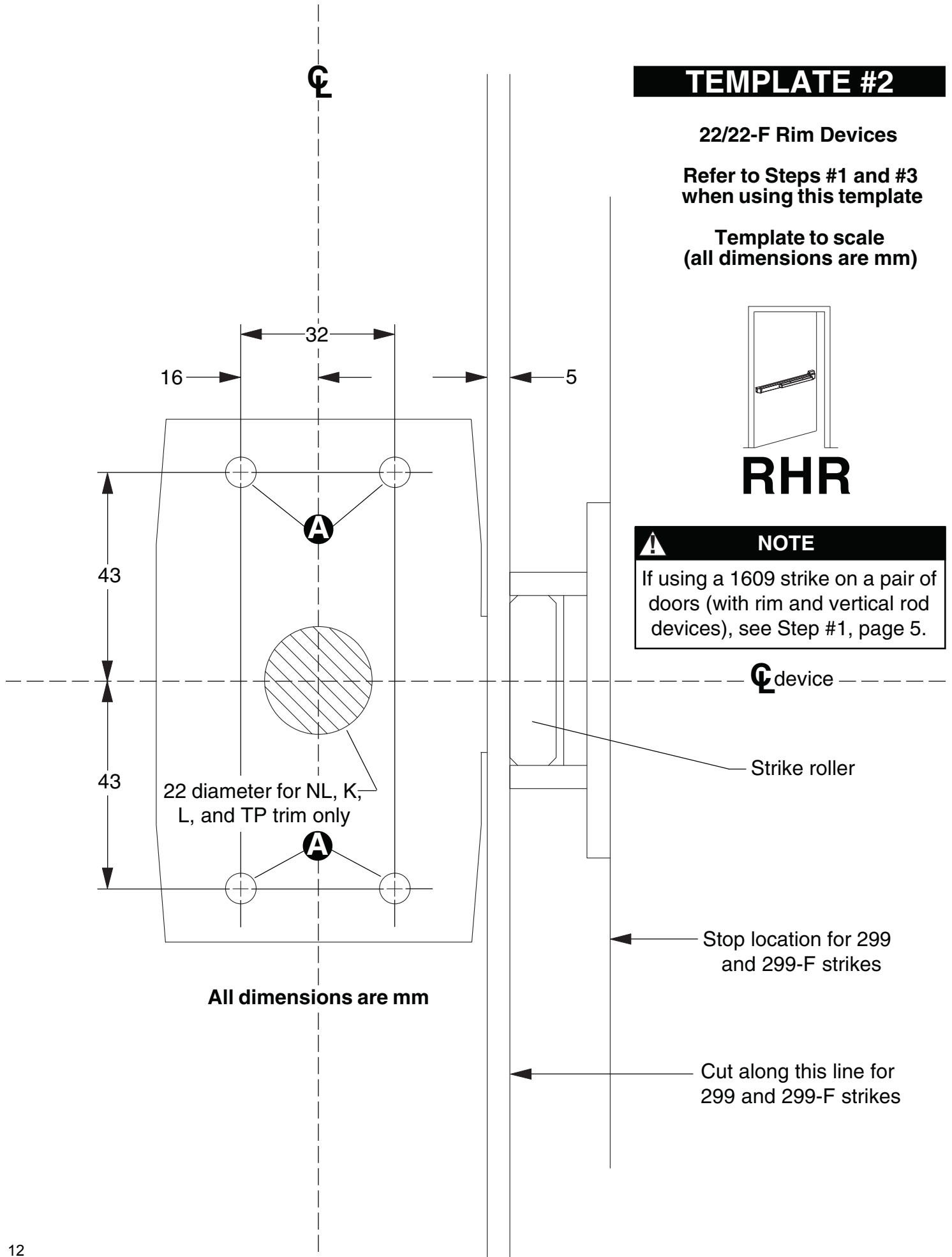


## RHR



### NOTE

If using a 1609 strike on a pair of doors (with rim and vertical rod devices), see Step #1, page 5.



## ADDITIONAL INSTALLATION REQUIREMENTS

- Before installation ensure door and frame are in good condition, correctly hung and not distorted  
**Note** - Maximum door distortion of 5mm to ensure safe exit.
- It is not recommended that exit devices be fitted to hollow core doors unless specially designed for this type of door.
- It is recommended to verify that the door construction allows the use of the device, i.e. to verify that offset hinges and engaging leaves allow both leaves to be opened simultaneously, or to verify that the gap between door leaves does not differ from that defined by the exit device producer, or to verify that the opening elements do not interfere, etc.
- Before fitting an emergency exit device to a fire/smoke resisting door, the fire certification of the fire door assembly on which the exit device has been tested to prove suitability for use on a fire door should be examined. It is of utmost importance that an exit device is not used on a fire door assembly of a greater fire resistance time than approved for.
- Care should be taken to ensure that any seals or weather-stripping fitted to the complete door assembly does not inhibit the correct operation of the emergency exit device.
- On double door sets with rebated meeting stiles and where both leaves are fitted with emergency exit devices, it is essential to check that either leaf will open when its emergency exit device is activated and also that both leaves will open freely when both emergency exit devices are operated simultaneously.
- Category 2 (Standard projection) emergency exit devices should be used in situations where there is restricted width for escape, or where the doors to be fitted with the emergency exit devices are not able to open beyond 90°
- Different fixing can be necessary for fitting emergency exit devices to wood, metal or frameless glass doors. For more secure fixing, male and female through-door bolts, reinforcement and rivets can be used.
- These exit devices are not intended for use on double action (double swing) doors.
- These fixing instructions should be carefully followed during installation. These instructions and any maintenance instructions should be passed on by the installer to the user.
- When installing lever operating emergency exit devices, particularly on doors with raised or recessed surfaces, consideration should be given to minimizing any potential safety risks, such as the trapping of fingers or clothing.
- The bolt heads and keepers should be fitted to provide secure engagement. Care should be taken to ensure that no projection of the bolt heads, when in the withdrawn position, can prevent the door swinging freely.
- Where emergency exit devices are to be fitted to double doorsets with rebated meeting stiles and self closing devices, a door coordinator device in accordance with EN 1158 should be fitted to ensure the correct closing sequence of the doors. This recommendation is particularly important with regard to smoke/fire-resisting door assemblies.
- No devices for securing the door in the closed position should be fitted other than specified in EN 1125 / EN 179. This does not preclude the installation of self-closing devices.
- If a door closing device is to be used to return the door to the closed position, care should be taken not to impair the use of the doorway by the young, elderly and infirm.
- Where applicable, the "Push to open" sign should be applied on the inside face of the door immediately above the operating element.

## **MAINTENANCE INSTRUCTIONS**

To ensure performance in accordance with the relevant standard, the following routine maintenance checks should be undertaken at intervals of not more than one month.



- a) Inspect and operate the emergency exit device to ensure that all components are in a satisfactory working condition.  
Using a force gauge, measure and record the operating forces to release the exit device.
- b) Ensure that the keepers are clean and free from obstruction
- c) Check that the emergency exit device is lubricated if required.
- d) Check that no additional locking devices have been added to the door since its original installation.
- e) Check periodically that all components of the system are still correct in accordance with the list of approved components originally supplied with the system.
- f) Check periodically that the operating element is correctly tightened and, using a force gauge, measure the operating forces to release the exit device.  
Check that the operating forces have not changed significantly from the operating forces recorded when originally installed.
- g) Check that all fixing screws are tight.

These instructions should be passed on by the installer to the user on completion of installation.

## **PRODUCT INFORMATION**

- To comply with EN1125 : 2008 door leaf must not exceed 2500mm high x 1300mm wide x 200Kg maximum weight.
- This product is intended for use on single and / or double leaf outward opening fire escape route doors.
- Category of projection : Category 2
- Field of door application : Category A
- Resistance of door leaf against pulling force of the recommended fixing screws: 1000N maximum achieved.

**CERTIFICATION DETAILS**

	<b>ALLEGION</b> 									
	Bescot Crescent Walsall, WS1, 4DL England									
1121-CPD-AAA027	2009									
EN 1125:2008	3	7	6	B	1	3	2	2	B	A

**FIRE / SMOKE DOOR SUITABILITY**

120 minutes except when fitted with approved trim devices shown in the table below

**Door type:** Insulated timber or mineral composite tested in accordance with BS EN1634-1 : 2000 (single or double leaf configuration)

**Note** - when fitted with the following accessories, fire door suitability is reduced to 60 minutes

<b>22 Series</b>	210DT#	210NL*	230L#	230DT#	230NL*
<b>33A Series</b>	OL*	360T*	386NL#	386DT#	388*
<b>35A Series</b>	OL*	360T*	386NL#	386DT#	388*
<b>98 Series</b>	990DT#	990NL*	990TP*	991K*	992L*
<b>99 Series</b>	990DT#	990NL*	990TP*	991K*	992L*

All items marked ‘#’ may be fitted to timber or mineral composite based doorsets for up to 60 minutes integrity.

All items marked ‘\*’ may be fitted to timber or mineral composite based doorsets for up to 60 minutes integrity, having a minimum thickness of 52mm and including sub facings comprising a minimum of 3mm thick non-combustible board, with their lock cylinders wrapped with a 1mm thick Interdens intumescent.

For additional information and full details of certification and fire door suitability:

Telephone : 01922 707400

[www.allegion.com](http://www.allegion.com)